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**Structural Genomics: Beyond the Human Genome Project**

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**ABSTRACT:** With access to whole genome sequences for various organisms and imminent completion of the Human Genome Project, the entire process of discovery in molecular and cellular biology is poised to change. Massively parallel measurement strategies promise to revolutionize how we study and ultimately understand the complex biochemical circuitry responsible for controlling normal development, physiologic homeostasis and disease processes. This information explosion is also providing the foundation for an important new initiative in structural biology. We are embarking on a program of high-throughput X-ray crystallography aimed at developing a comprehensive mechanistic understanding of normal and abnormal human and microbial physiology at the molecular level. A rationale for creation of a structural genomics initiative is now clear and has been funded by the NIGMS. This resource is providing infrastructure support for this project as well as technical developments in beamline technology as well as novel technologies for structure determination. As the first year of the Genomics project comes to a close, we will report 27 structures to the PDB (by 8/31/01). This is an outstanding first year of progress and augurs well for continued productivity of our center. A web site ([www.nysgrc.org](http://www.nysgrc.org)) reports all progress of the center.